

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 2 of 18

In the Claims:

1. (Withdrawn) A method of forming a loop component for use in a hook and loop fastening system, comprising:
entangling a plurality of non-interbonded fibers in a fibrous web of material to form a spunlaced fabric having a plurality of loop structures that are configured to engage hooks from a hook component; and
bonding between about two percent and about twenty five percent (2%-25%) of the spunlaced fabric to reduce fiber fuzzing and pull out caused by hooks engaging with and disengaging from a loop component.
2. (Withdrawn) The method of Claim 1, wherein entangling a plurality of non-interbonded fibers comprises directing one or more jets of high-pressure water at the fibrous web of material.
3. (Withdrawn) The method of Claim 1, wherein bonding comprises bonding the spunlaced fabric in a continuous bond pattern.
4. (Withdrawn) The method of Claim 1, wherein bonding comprises bonding the spunlaced fabric in multiple, spaced apart bond patterns.
5. (Withdrawn) The method of Claim 1, wherein bonding the spunlaced fabric comprises thermally, adhesively, or ultrasonically bonding the spunlaced fabric.
6. (Withdrawn) The method of Claim 1, wherein bonding the spunlaced fabric comprises autogenously bonding the spunlaced fabric.
7. (Withdrawn) The method of Claim 1, further comprising bonding the spunlaced fabric to a backing layer.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 3 of 18

8. (Withdrawn) The method of Claim 7, wherein bonding the spunlaced fabric to a backing layer comprises thermally, adhesively, or ultrasonically bonding the spunlaced fabric to the backing layer.

9. (Withdrawn) The method of Claim 7, wherein bonding comprises autogenously bonding the spunlaced fabric to the backing layer in a pattern.

10. (Withdrawn) The method of Claim 9, wherein the bond pattern comprises a continuous bond pattern.

11. (Withdrawn) The method of Claim 9, wherein the bond pattern comprises a repeat unit of between about 0.2 cm and 12 cm.

12. (Withdrawn) The method of Claim 10, wherein the bond pattern comprises elements having dimensions between about 0.02 mm and 4 mm.

13. (Withdrawn) The method of Claim 9, wherein the spunlaced fabric is bonded to between about two percent and about twenty-five percent (2%-25%) of a surface area of the backing layer.

14. (Withdrawn) The method of Claim 7, further comprising providing the backing layer with decorative indicia and/or coloring.

15. (Withdrawn) The method of Claim 1, further comprising embossing the spunlaced fabric with a decorative pattern.

16. (Withdrawn) A method of forming a loop component for use in a hook and loop fastening system, comprising:

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 4 of 18

entangling a plurality of non-interbonded fibers in a fibrous web of material to form a spunlaced fabric having a plurality of loop structures that are configured to engage hooks from a hook component; and

stretching the spunlaced fabric in a cross web direction between about five percent and one-hundred twenty five percent (5%-125%) of the unstretched width of the spunlaced fabric.

17. (Withdrawn) The method of Claim 16, further comprising bonding between about two percent and about twenty five percent (2%-25%) of the spunlaced fabric to reduce fiber fuzzing and pull out caused by hooks engaging with and disengaging from a loop component.

18. (Withdrawn) The method of Claim 16, wherein entangling a plurality of non-interbonded fibers comprises directing one or more jets of high-pressure water at the fibrous web of material.

19. (Withdrawn) The method of Claim 17, wherein bonding comprises bonding the spunlaced fabric in a continuous bond pattern.

20. (Withdrawn) The method of Claim 17, wherein bonding comprises bonding the spunlaced fabric in multiple, spaced apart bond patterns.

21. (Withdrawn) The method of Claim 17, wherein bonding the spunlaced fabric comprises thermally, adhesively, or ultrasonically bonding the spunlaced fabric.

22. (Withdrawn) The method of Claim 17, wherein bonding the spunlaced fabric comprises autogenously bonding the spunlaced fabric.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 5 of 18

23. (Withdrawn) The method of Claim 16, further comprising bonding the spunlaced fabric to a backing layer.

24. (Withdrawn) The method of Claim 23, wherein bonding the spunlaced fabric to a backing layer comprises thermally, adhesively, or ultrasonically bonding the spunlaced fabric to the backing layer.

25. (Withdrawn) The method of Claim 23, wherein bonding comprises autogenously bonding the spunlaced fabric to the backing layer in a pattern.

26. (Withdrawn) The method of Claim 25, wherein the bond pattern comprises a continuous bond pattern.

27. (Withdrawn) The method of Claim 25, wherein the bond pattern comprises a repeat unit of between about 0.2 cm and 12 cm.

28. (Withdrawn) The method of Claim 26, wherein the bond pattern comprises elements having dimensions between about 0.02 mm and 4 mm.

29. (Withdrawn) The method of Claim 23, wherein the spunlaced fabric is bonded to between about two percent and about twenty-five percent (2%-25%) of a surface area of the backing layer.

30. (Withdrawn) The method of Claim 23, further comprising providing the backing layer with decorative indicia and/or coloring.

31. (Withdrawn) The method of Claim 16, further comprising embossing the spunlaced fabric with a decorative pattern.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 6 of 18

32. (Currently Amended) A loop component for use in a hook and loop fastening system, comprising a spunlaced nonwoven fabric having a plurality of loop structures formed by entangling a plurality of non-interbonded fibers in a fibrous web of material, wherein the plurality of loop structures define a landing zone for receiving hooks from a male component of a hook and loop fastener, wherein the loop structures in the landing zone contain no interbonded fibers, wherein between about two percent and about twenty-five percent (2%-25%) of a surface area of the landing zone spunlaced fabric is bonded in one or more patterns to reduce fiber fuzzing and pull out caused by hooks engaging with and disengaging from the loop structures of the loop component, and wherein loop structures remaining in the landing zone contain no interbonded fibers.

33. (Currently Amended) The loop component of Claim 32, wherein the spunlaced fabric is stretched in a cross web direction between about five percent and about one hundred twenty-five percent (5%-125%) of an unstretched width of the spunlaced nonwoven fabric.

34. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric are configured to engage hooks from a hook component having a hook density between about 30 and 400 hooks per square centimeter.

35. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric are configured to engage hooks from a hook component having individual hook lengths of 0.8 cm or less.

36. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric have an average peel strength of between about 50 grams and 750 grams when tested using ASTM D5170-98 test method.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 7 of 18

37. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric have an average maximum load peel strength of between about 700 grams and 10,000 grams when tested using ASTM D5170-98 test method.

38. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric have an average peak shear strength of between about 200 and 7,000 grams when tested using ASTM D5169-91 test method.

39. (Currently Amended) The loop component of Claim 32, wherein the loop structures of the spunlaced nonwoven fabric maintain a maximum average peel strength after 20 test cycles between about 50 and 550 grams when tested using ASTM D5170-98 test method.

40. (Currently Amended) The loop component of Claim 32, wherein the fibers of the spunlaced nonwoven fabric have a denier of between about 0.5 and 19.

41. (Currently Amended) The loop component of Claim 32, wherein the fibers of the spunlaced nonwoven fabric have a density of between about 0.1 and 1.2 grams per cubic centimeter.

42. (Currently Amended) The loop component of Claim 32, wherein the spunlaced nonwoven fabric has a thickness of between about 10 and 95 mils.

43. (Original) The loop component of Claim 32, wherein the non-interbonded fibers of the fibrous web comprise fibers selected from the group consisting of polypropylene, polyethylene, polyethylene terephthalate, polyester, acetate, nylon, viscose and acrylic, or blends or bicomponents thereof.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 8 of 18

44. (Currently Amended) The loop component of Claim 32, wherein the spunlaced nonwoven fabric is embossed with a decorative pattern.

45. (Currently Amended) The loop component of Claim 32, further comprising a backing layer bonded to the spunlaced nonwoven fabric.

46. (Original) The loop component of Claim 45, wherein the backing layer comprises material selected from the group consisting of polypropylene, polyethylene, polyester, acetate, nylon, urethane, or blends thereof, polymer film, nonwoven fabric, woven fabric, and knit scrim.

47. (Original) The loop component of Claim 45, wherein the backing layer comprises polyolefin film having a density less than about 0.91 grams per cubic centimeter.

48. (Currently Amended) The loop component of Claim 45, wherein the backing layer is bonded to the spunlaced nonwoven fabric either thermally, adhesively, autogenously, or ultrasonically.

49. (Original) The loop component of Claim 45, wherein the backing layer comprises material impervious to water.

50. (Original) The loop component of Claim 45, wherein the backing layer has a thickness between about 0.4 and 40 mils.

51. (Original) The loop component of Claim 45, wherein the backing layer has a density of between about 0.65 and 1.4 grams per cubic centimeter.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 9 of 18

52. (Currently Amended) The loop component of Claim 45, wherein the spunlaced nonwoven fabric and backing layer has a thickness between about 8 mils and 400 mils.

53. (Currently Amended) The loop component of Claim 45, wherein the spunlaced nonwoven fabric and backing layer has a basis weight greater than or equal to 19 grams per square meter.

54. (Currently Amended) The loop component of Claim 45, wherein the spunlaced nonwoven fabric and backing layer has a Frazier air permeability of less than about 25 cubic feet per minute.

55. (Currently Amended) The loop component of Claim 45, wherein the spunlaced nonwoven fabric and backing layer has a machine direction (MD) grab tensile strength of between about 10 pounds and 40 pounds.

56. (Currently Amended) A hook and loop fastening system, comprising:
a hook component having a hook density between about 30 and 400 hooks per square centimeter; and

a loop component, comprising a spunlaced nonwoven fabric having a plurality of loop structures formed by entangling a plurality of non-interbonded fibers in a fibrous web of material, wherein the loop structures of the spunlaced nonwoven fabric are configured to engage hooks from the hook component, wherein the plurality of loop structures define a landing zone for receiving hooks from a male component of a hook and loop fastener, wherein the loop structures in the landing zone contain no interbonded fibers, and wherein between about two percent and about twenty-five percent (2%-25%) of a surface area of the landing zone spunlaced fabric is bonded in one or more patterns to reduce fiber fuzzing and pull out caused by hooks from the hook component engaging with and disengaging from the loop structures of the loop component, and wherein loop structures remaining in the landing zone contain no interbonded fibers.

In re: Gillette et al.
Serial No.: 10/643,610
Filed: August 19, 2003
Page 10 of 18

57. (Currently Amended) The hook and loop fastening system of Claim 56, wherein the loop component spunlaced nonwoven fabric is stretched in a cross web direction between about five percent and about one hundred twenty-five percent (5%-125%) of an unstretched width of the spunlaced fabric.

58. (Currently Amended) The hook and loop fastening system of Claim 56, wherein the loop structures of the spunlaced nonwoven fabric are configured to engage hooks having individual hook lengths of 0.8 cm or less.

59. (Currently Amended) The hook and loop fastening system of Claim 56, wherein the loop structures of the spunlaced nonwoven fabric have an average peel strength of between about 50 grams and 550 grams when tested using ASTM D5170-98 test method.